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FIGURE 1

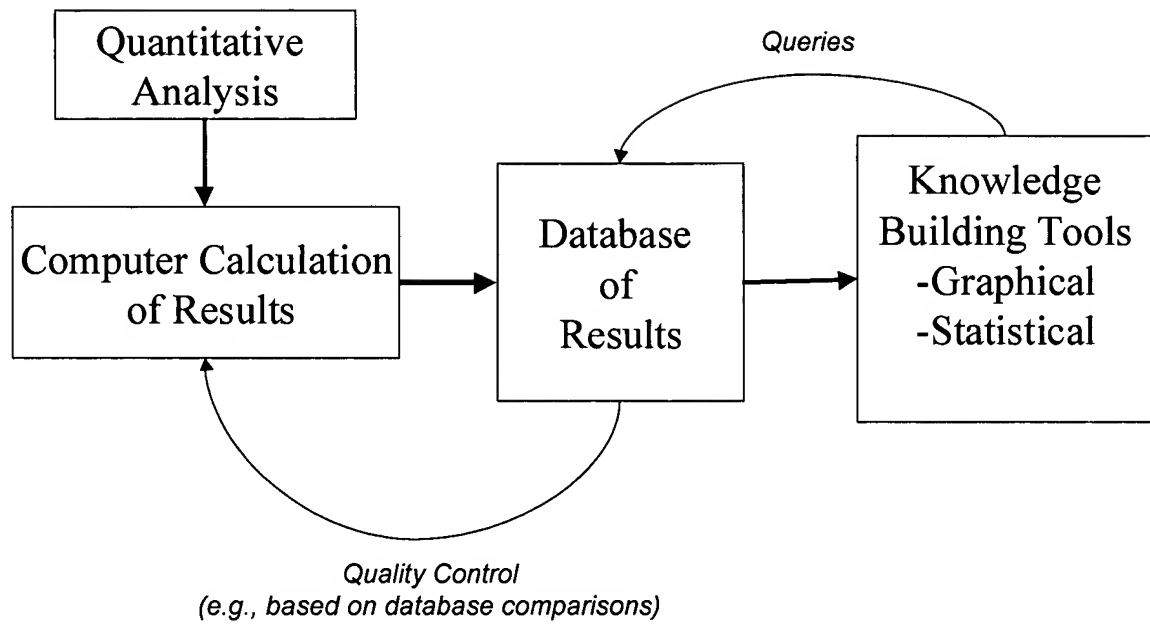
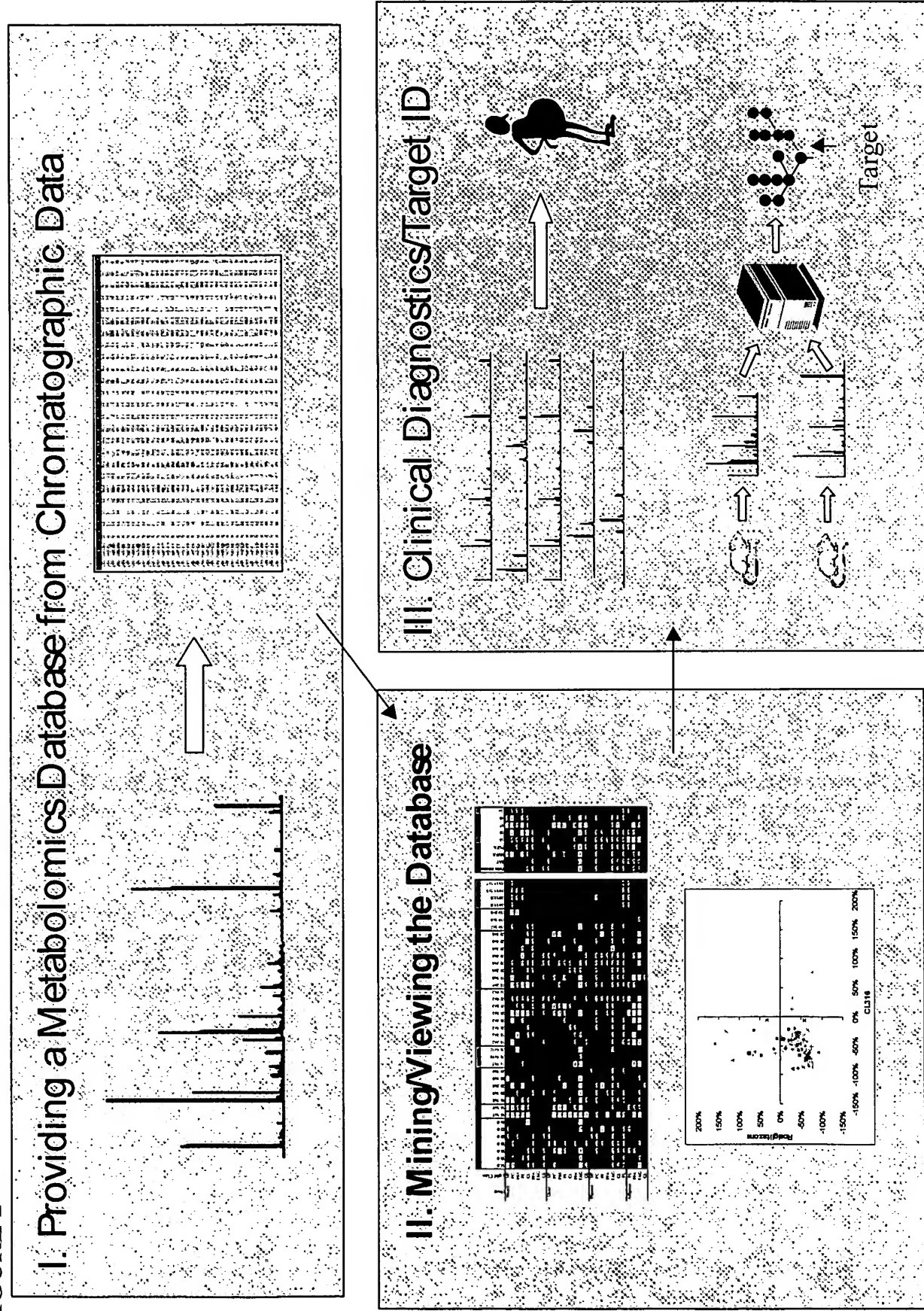


FIGURE 2



The diagram illustrates the metabolic pathways for fatty acid synthesis and metabolism. It is divided into two main sections: **De novo synthesis & Diet** and **Diet**.

De novo synthesis & Diet: This section shows the synthesis of fatty acids from acetyl-CoA. The pathway starts with **14:0** and **16:0** (labeled **FAS** for Fatty Acid Synthase). The synthesis proceeds through several steps, with intermediates branching off to form specific fatty acids:

- 16:0** is converted to **18:0** (labeled **Elongase**).
- 18:0** is converted to **20:0** (labeled **Elongase**).
- 20:0** is converted to **22:0** (labeled **Elongase**).
- 22:0** is converted to **24:0** (labeled **Elongase**).
- 18:0** is converted to **18:1n7** (labeled **$\Delta 9$ Desaturase**).
- 20:0** is converted to **20:1n7** (labeled **$\Delta 9$ Desaturase**).
- 22:0** is converted to **22:1n9** (labeled **$\Delta 9$ Desaturase**).
- 24:0** is converted to **24:1n9** (labeled **$\Delta 9$ Desaturase**).
- 20:1n7** is converted to **20:2n7** (labeled **$\Delta 6$ Desaturase**).
- 20:2n7** is converted to **20:3n7** (labeled **Elongase**).
- 20:3n7** is converted to **20:4n6** (labeled **Elongase**).
- 20:4n6** is converted to **22:4n6** (labeled **Elongase**).
- 22:4n6** is converted to **22:5n6** (labeled **Elongase**).
- 22:5n6** is converted to **22:6n3** (labeled **Elongase**).

Diet: This section shows the intake of fatty acids from the diet. The pathways are similar to the de novo synthesis pathways, but the starting point is the diet. The intermediates are labeled as follows:

- 18:0** is converted to **20:0** (labeled **Elongase**).
- 20:0** is converted to **22:0** (labeled **Elongase**).
- 22:0** is converted to **24:0** (labeled **Elongase**).
- 18:0** is converted to **18:1n7** (labeled **$\Delta 9$ Desaturase**).
- 20:0** is converted to **20:1n7** (labeled **$\Delta 9$ Desaturase**).
- 22:0** is converted to **22:1n9** (labeled **$\Delta 9$ Desaturase**).
- 24:0** is converted to **24:1n9** (labeled **$\Delta 9$ Desaturase**).
- 20:1n7** is converted to **20:2n7** (labeled **$\Delta 6$ Desaturase**).
- 20:2n7** is converted to **20:3n7** (labeled **Elongase**).
- 20:3n7** is converted to **20:4n6** (labeled **Elongase**).
- 20:4n6** is converted to **22:4n6** (labeled **Elongase**).
- 22:4n6** is converted to **22:5n6** (labeled **Elongase**).
- 22:5n6** is converted to **22:6n3** (labeled **Elongase**).

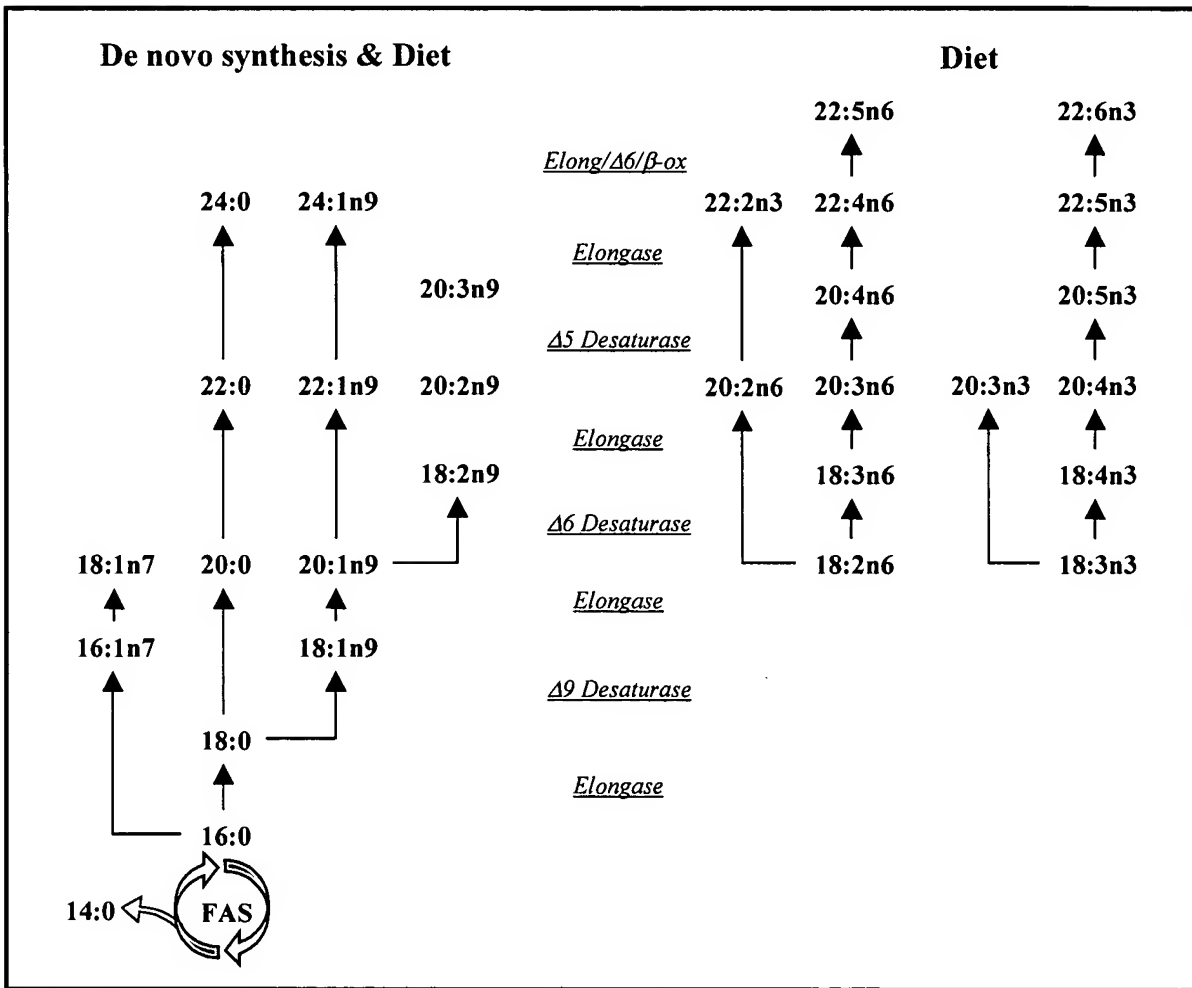


FIGURE 4A

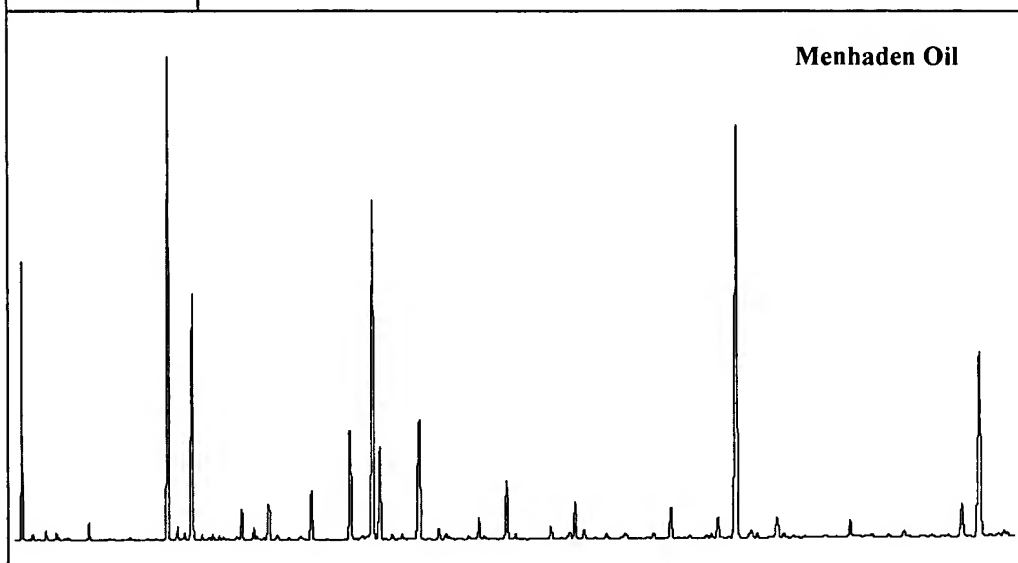
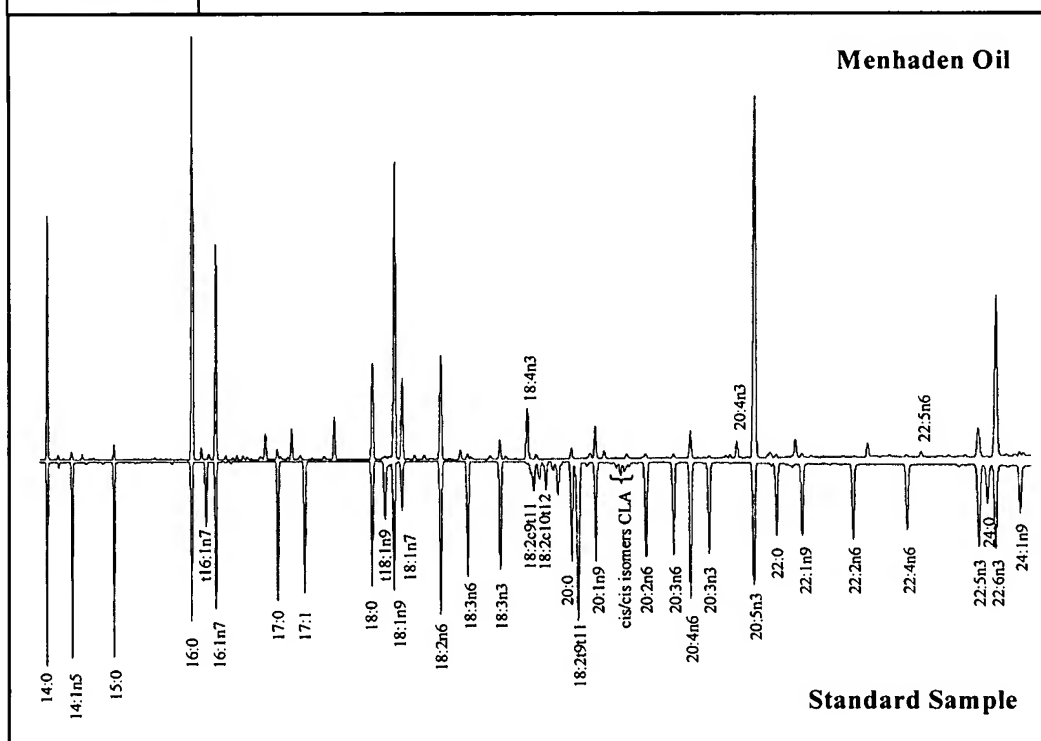


FIGURE 4B



[illegible]

FIGURE 6

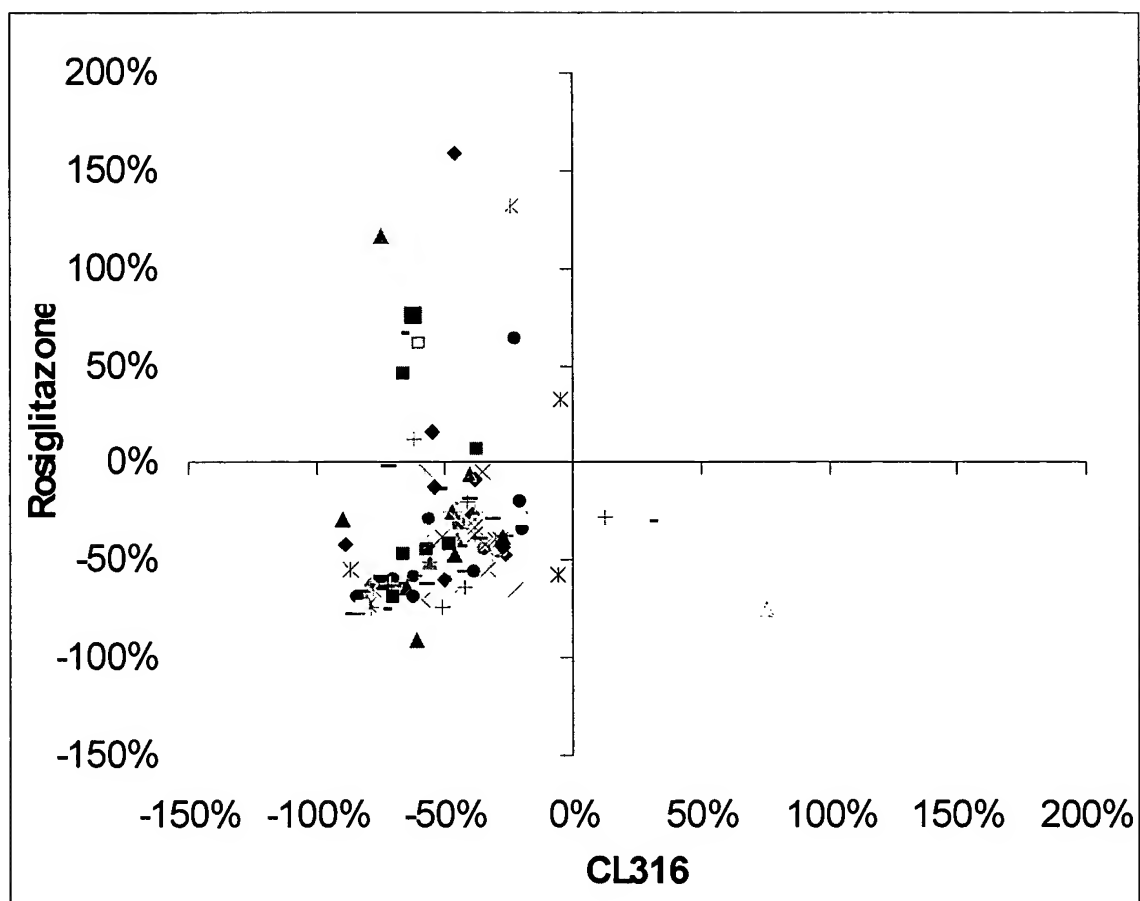


FIGURE 7

